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## Amendments to the Claims:

A complete claim set showing all changes follows. In the amended claim set, claims 1-3, 9-12, 17, and 18 are amended, claims 19-30 are cancelled, and claims 31-36 are added.

## Listing of Claims:

 (Currently amended) A method of creating a high resistivity <u>conductive</u> material on a target, comprising:

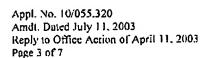
directing a focused ion beam toward an impact point on the target; and directing one or more precursor gases toward the impact point, the ion beam causing the precursor gas to decompose and thereby deposit a high resistivity conductive material onto the target.

2. (Currently amended) The A method of elaim 1 in which creating a high resistivity conductive material on a target, comprising:

directing a focused ion beam toward an impact point on the target; and
directing one or more precursor gases toward the impact point, the ion beam causing the
precursor gas to decompose and thereby deposit a high resistivity conductive material onto the
target, the one or more precursor gases comprises comprising a first precursor compound that when
applied alone to a target in the presence of an ion beam decomposes in the presence of the
ion beam to produce a conductive material and a second precursor compound that when applied
alone to a target in the presence of an ion beam decomposes in the presence of the ion beam to
product an insulating material.

- 3. (Currently amended) The method of claim 1 in which the high resistivity conductive material has a resistivity of between about  $5x10^4$  ohms per square and about  $7x10^4$  ohms per square.
  - 4. (Original) The method of claim 2 in which the first precursor compound includes an





organometallic compound.

- (Original) The method of claim 4 in which the first precursor compound includes a platinum or tungsten organometallic compound.
- 6. (Original) The method of claim 2 in which the second precursor compound deposits a compound containing silicon.
- (Original) The method of claim 6 in which the second precursor compound includes a siloxane compound.
- 8. (Original) The method of claim 6 in which the second precursor compound includes OMCTS or TMCTS.
- 9. (Currently amended) The method of claim 1 in which the high resistivity conductive material deposited on the target forms a structure and in which the structure has a resistance of less than 900 megohms.
- 10. (Currently amended) The method of claim 1 in which the high resistivity conductive material deposited on the target forms a structure and in which the structure has a resistance of between one megohm and 100 megohms.
- 11. (Currently amended) The method of claim 1 in which directing a focused ion beam onto the target includes directing the focused ion beam to deposit a high resistivity <u>conductive</u> structure having a length of less than 500 µm and a resistance of greater than 0.5 megohm.
- 12. (Currently amended) A method for creating a high resistance <u>conductive</u> structure on a target, comprising the steps of:





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providing a first precursor compound and a second precursor compound in the presence of a focused ion beam; and

causing the deposition of a structure onto the target wherein the presence of the first and second precursor compounds cause the <u>conductive</u> structure to exhibit a high resistivity.

- 13. (Original) The method of claim 12, wherein the resistance of the structure is controllable by controlling the length or width of the structure.
- 14. (Original) The method of claim 12, wherein the rate of deposition is controllable according to the relative concentrations of the first and second precursor compounds.
- 15. (Original) The method of claim 12, wherein the high resistance structure exhibits an interface layer between a conductive layer and a non-conductive layer.
- 16. (Original) The method of claim 12, wherein the high resistance structure exhibits a linear voltage-current relationship over a voltage range of greater than 10 volts.
- 17. (Currently amended) The method of claim 12 in which the structure has a resistance as measured by both the a two point probe method and a four point probe method of between one megohm and 900 megohms.
- 18. (Currently amended) The method of claim 12 in which the structure has a resistance as measured by both the a two point probe method and a four point probe method of between one megohm and 100 megohms.

Claims 19-30 (Cancelled)

31. (New) The method of claim 2 in which directing one or more precursor gases toward

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the impact point includes simultaneously directing the first precursor compound and the second precursor compound toward the impact point.

- 32. (New) The method of claim 2 in which directing one or more precursor gases toward the impact point includes alternatively directing the first precursor compound and the second precursor compound toward the impact point.
- 33. (New) The method of claim 12 wherein providing a first precursor compound and a second precursor compound in the presence of a focused ion beam includes providing a first precursor compound and a second precursor simultaneously.
- 34. (New) The method of claim 12, wherein providing a first precursor compound and a second precursor compound includes providing a first precursor compound from a first precursor outlet and a second precursor compound from a second precursor outlet.
- 35. (New) The method of claim 12, wherein providing a first precursor compound and a second precursor compound includes providing a first precursor compound and a second precursor compound from a single precursor outlet.
- 36. (New) The method of claim 12, wherein providing a first precursor compound and a second precursor compound in the presence of a focused ion beam includes alternately providing a first precursor compound and a second precursor.

